

REMARKS

Claims 1-5, 8-17, 19-37, 39-52, 54-63 and 66-83 stand rejected. Claims 1, 8, 12, 13, 20, 22-24, 26, 27, 30, 46, 54-56, and 70 have been amended. Claims 51 and 52 have been canceled. New claims 84-87 have been added. The Applicants respectfully request reconsideration in view of the foregoing amendments. No new matter has been added.

Claim Objections

The Office Action objects to claim 46 for lacking proper antecedent basis. Claim 46 has been amended to overcome this objection. No new matter is introduced.

Claim Formalities

Claim 8 has been amended to replace the short-hand term "Elists" with the full term "element deletion lists." Claim 13 has been amended to correct a typographical error. Claims 22-24, 27, 54 and 55 have been amended for proper antecedent basis.

Entry of these amendments is respectfully requested. No new matter is introduced.

Claim Rejections – 35 U.S.C. §§ 102 and 103

The Office Action rejected claims 1-2, 4-5, 9-17, 19, 30-34, 36-37, 40-46, 51-52, 54-57, 59-61, 63, 67-68, 70-77, 79-81 and 83 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,920,700 ("Gordon et al"). The Office Action rejected claims 78 and 82 under 35 U.S.C. §103(a) as being unpatentable over Gordon et al and also rejected claims 3, 8, 20-29, 35, 39, 47-50, 58, 62, 66 and 69 under 35 U.S.C. §102(e) as being unpatentable over Gordon et al and in view of U.S. Patent 6,473,902 ("Noritomi").

Claims 1, 20, 26, 30 and 56

Claim 1 has been amended to clarify that the recited process of propagating viewing assets to a system of video servers comprises, in part, the steps of comparing the propagation priority of the selected viewing asset against a sum of one or more retention values corresponding to a set of one or more viewing assets stored on a target video server and copying

a missing portion of a replica of the selected viewing asset to the target video server in response to determining that the propagation priority of the selected viewing asset exceeds the sum of one or more retention values. Claim 56 is similarly amended. Support for these amendments can be found at least in FIGS. 5A-7 and in the specification as originally filed on page 16, line 13 through page 20, line 27.

Claim 20 has been amended to clarify that the recited process of propagating viewing assets to a target video storage comprises, in part, the steps of constructing a table of element deletion lists for the target video storage with each of the element deletion lists having a retention value and identifying a set of replicas of asset elements that are capable of being removed from the target video storage as a group; comparing a propagation priority of a viewing asset against the retention value of the selected element deletion list; and copying the portion of the replica of the viewing asset onto the target video storage in response to the propagation priority of the viewing asset exceeding a retention value of the selected element deletion list. Support for these amendments can be found at least in FIGS. 8A-10 and in the specification as originally filed on page 20, line 29 through page 24, line 24.

Claim 26 has been amended to clarify that the recited process of distributing viewing assets to viewing comprises, in part, the steps of assigning a retention value to a set of replicas of viewing assets stored on the target video server such that the retention value represents a predicted economic value of retaining the set of replicas on the target video server; comparing a propagation priority associated with a selected viewing asset against the retention value associated with the set of replicas stored on the target video server; and copying the selected viewing asset onto the target video server in response to determining that the propagation priority of the selected viewing asset exceeds the retention value associated with the set of replicas of viewing assets stored on the target video server, the set of replicas occupying enough space to store the selected viewing asset. Support for these amendments can be found at least in FIGS. 5A-7 and in the specification as originally filed on page 16, line 13 through page 20, line 27.

Claim 30 has been amended to clarify that the recited interactive television system comprises, in part, a control unit that is configured to control copying of a missing portion of a replica of a selected viewing asset to a target viewing asset in response to comparing a first

economic value of propagating the selected viewing asset onto the target server against a second economic value of retaining a replica of one or more other viewing assets already stored on the target server and determining that the first economic value of propagating the selected viewing asset exceeds the second economic value of retaining the replica of the one or more viewing assets on the target server, such that the first economic value comprising a first priority associated with the selected viewing asset and a second priority associated with the target video server. Support for these amendments can be found at least in FIGS. 3-4 and in the specification as originally filed on page 12, line 1 through page 16, line 12.

In contrast, with respect to Gordon et al, the decision to make additional copies of assets is independent of the decision to delete copies of assets from storage. Specifically, copies of assets are made if usage of a particular asset or asset group is above a predetermined percentage (y%) above a predetermined minimum (x). If there are any asset or asset groups where usage is greater than y%, these assets or asset groups are queued for additional copying. Conversely, an asset is deleted from storage if the asset has not been used for a predetermined period of non-use and the number of unused copies exceeds a minimum number of allowed unused copies. (See Gordon et al, col. 8, line 41 through col. 9, line 13.) Nowhere does Gordon et al teach or suggest copying a portion of a replica of a selected viewing asset onto a target video server or other storage device as a result of comparing and determining that the propagation priority of a selected viewing asset exceeds a retention value or a sum of retention values corresponding to one or more viewing assets or asset elements stored on a target video server or device as now recited in claims 1, 20, 26, 30 and 56, respectively. With respect to Noritomi, the previous Office Action acknowledged that Noritomi fails to disclose a propagating priority representing a predicted economic value and a retention value. (See Office Action dated August 25, 2005, page 4).

For at least these reasons, claims 1, 20, 26, 30 and 56 as now amended are neither anticipated nor made obvious by the cited art of record and are thus believed to be patentable.

Furthermore, by virtue of at least their dependency from claims 1, 20, 26, 30 and 56 respectively, and the additional features recited therein, claims 2-5, 8-11, 21-25, 27-29, 31-40, 47-50, 57-63, 66-69, and 74-83 are also believed to be patentable.

Claims 12 and 70

The process of claim 12 has been amended to recite that the second priority is calculated based on replicas available to the target video server, load on the target video server, availability of alternative delivery paths to stream the selected asset to users other than the target video server, processing speed available to the target video server, or any combination thereof. Claim 12 has also been amended for clarity, reciting the step of propagating, to zero or more of the video servers, those viewing assets according to rank. Claim 70 has been similarly amended. Support for these amendments can be found at least in FIG. 11 and in the specification as originally filed on page 24, line 25 through page 30, line 13.

In contrast, neither Gordon et al nor Noritomi teach or suggest assigning propagation priorities comprising first and second priorities to each of a plurality of viewing assets, such that the second priority is calculated based on one or more of the listed characteristics or parameters associated with a target video server or device as recited in claims 12 and 70.

For at least this reasons, claims 12 and 70 as now amended are neither anticipated nor made obvious by the cited art of record and are thus believed to be patentable.

Furthermore, by virtue of at least their dependency from claims 12 and 70 respectively, and the additional features recited therein, claims 13-17, 19, 41-46, 54, 55, 71 and 73 are also believed to be patentable.

New Claims 84-87

Claims 84-87 have been added in this amendment. Support for these new claims can be found at least in FIG. 11 and in the specification as originally filed on page 24, line 25 through page 30, line 13.

New claims 84 and 85 recite a process and system, respectively, for propagating digital viewing assets to video servers, comprising steps or means for assigning one or more propagation priorities to each of a plurality of digital viewing assets, the one or more propagation priorities for a corresponding viewing asset being indicative of an economic value of propagating the viewing asset onto one or more video servers, each propagation priority comprising a first priority associated with the viewing asset and a second priority associated with a corresponding

target video server, wherein the first priority is calculated based on short-term viewer demand, medium-term viewer demand, usage class data, or any combination thereof; ranking the viewing assets based on the assigned propagation priorities; and propagating, to zero or more of the video servers, those viewing assets according to rank.

New claims 86 and 87 recite a process and system, respectively, for propagating digital viewing assets to target devices, comprising steps or means for assigning propagation priorities a plurality of digital viewing assets, each of the propagation priorities being predictive of an economic value of propagating a particular asset to a particular target device, each propagation priority comprising a first priority associated with the particular asset and a second priority associated with the particular target device, wherein the first priority is calculated based on short-term viewer demand, medium-term viewer demand, usage class data, or any combination thereof; ranking the assets based on the assigned priorities; and propagating zero or more of the assets to one or more of the target devices according to rank.

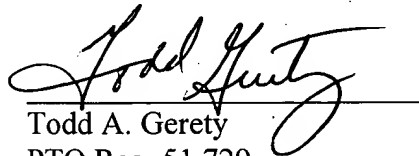
Neither Gordon et al nor Noritomi teach or suggest assigning propagation priorities comprising first and second priorities to each of a plurality of viewing assets, such that the first priority is calculated based on short-term viewer demand, medium-term viewer demand, usage class data, or any combination thereof as recited in claims 84-87. At best, in Gordon et al, copies of assets are made if usage of a particular asset or asset group is above a predetermined percentage (y%) above a predetermined minimum (x). (See Gordon et al, col. 8, line 41 through col. 9, line 13.) Gordon et al do not factor in short-term viewer demand, medium-term viewer demand, usage class data, or any combination thereof in determining whether to copy an asset at all. With respect to Noritomi, the previous Office Action acknowledged that Noritomi fails to disclose a propagating priority representing a predicted economic value. (See Office Action dated August 25, 2005, page 4).

For at least this reasons, new claims 84-87 are neither anticipated nor made obvious by the cited art of record and are also believed to be patentable.

CONCLUSION

In view of the above amendments and remarks, it is believed that claims 1-5, 8-17, 19-37, 39-50, 54-63 and 66-87 are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,



Todd A. Gerety
PTO Reg. 51,729
Attorney for the Applicant
Proskauer Rose LLP
One International Place
Boston, MA 02110

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Tel. (617) 526-9655
Fax (617) 526-9899